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A CASE OF RETINITIS PIGMENTOSA, THE PARENTS OF THE PATIENT BEING FIRST COUSINS.

[Read before, and the patient exhibited to, the Boston Society for Medical Improvement. Communicated
for the Boston Medical and Surgical Journal.]

By HASKET DEXBY, M.D., BOSTON.

OBSERVATION thus far goes to show that a certain deep-seated affection of the eye, characterized by a deposit of pigment on the retina and terminating inevitably in blindness, occurs in from 40 to 50 per cent. of the cases in the offspring of the intermarriage of blood relations. I have thought that the exhibition of such a case to the Society, and the demonstration to them of the retinal changes by the aid of the fixed ophthalmoscope, might not be devoid of interest to those even not specially interested in the subject of ophthalmic disease.

M. K., aged 24, entered the Eye Infirmary a few days since, under the care of Dr. F. P. Sprague. She complained chiefly of imperfect vision, which had been gradually increasing since the age of 12. When first troubled in this way, she procured a pair of strong convex glasses, and has read and studied with them up to within six months of the present time, since when, alarmed at the continued failure of vision, she has refrained from all use of the eyes on near objects. Has long been aware that by twilight and in the evening her vision was not as good as other people's. Her general health has always been reasonably good, though she has never been very robust. Catamenia quite regular as to time, though rather deficient in quantity.

The eyes externally are of normal appearance, except that there is a divergent strabismus of about 2" on the left side. Each field of vision is much narrowed upwards and inwards. As compared with the normal standard, or unity, the vision of the right eye would be expressed by the fraction $\frac{1}{2}$, that of the left by $\frac{1}{4}$. The ophthalmoscope reveals almost precisely the condition of things pictured in

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the plate which is laid before you (Liebreich. *Atlas der Ophthalmoscopie*, Tab. VI., Fig. I.), viz., commencing whiteness and atrophy of the optic nerve, with diminution in size of the vessels, and an abundant deposit of pigment in the retina, surrounding the optic nerve and yellow spot.

Inquiry elicited the fact that the parents were first cousins. Out of six brothers and sisters, one, she says, has "weak eyes," and one has vision similar to her own.

[For much of the foregoing, and for the permission to exhibit the case to the Society, I am indebted to my friend and colleague, Dr. Sprague.]

Similar cases are of not infrequent occurrence, and were observed for the first time within two years of the discovery of the ophthalmoscope, though the connection of the disease with the relationship of the parents was first remarked upon by Liebreich four years ago.

The earliest symptom is night-blindness, or, more generally speaking, the inability of the patient to see in a dim light. This may have been observed from early youth, and have increased so gradually as to give rise to but little uneasiness. Experience shows that the patients have become so completely used to this state of things as to accept it as a congenital and unavoidable deficiency of vision, and continue to use their eyes without restriction till warned by more urgent symptoms. Such are deep-seated pains, extreme heaviness of the lids, and especially the diminution of vision, at first lateral and finally central. It is usually at this stage that medical advice is first sought. An examination shows the field of vision to be greatly narrowed, while central vision itself may or may not be far below the normal standard. The lateral sensibility of the retina may be so diminished that the patient is unable to go about alone, and yet the limited portion that retains its activity may be capable of distinguishing the finest object. Externally nothing is visible, except perhaps a slight narrowing of the pupils. The ophthalmoscope shows the optic-nerve entrance to be at times in a partially atrophied state, at times irregularly defined and of a grayish-red color. The vessels of the retina are unevenly filled, occasionally partially obliterated. But the most important and characteristic change takes place in the retina itself, and consists in the development of masses of pigment of varying size and shape, from the smallest point to the irregularly stellated patch, surrounding the optic nerve and macula lutea in a band or zone, parallel—as a circle—to the iris, and generally broader on the inner than on the outer side. These masses of pigment are found on close scrutiny to be made up of innumerable fine points or separate cells. They are often grouped about the retinal vessels and follow their course.

As regards the origin of this accumulation of pigment, different opinions have prevailed. It seems, however, to be at present esta-

blished that it may be either the result of choroidal disease, and may find its way from this structure into the retina; or that an independent development of pigment may take place along the course of the retinal vessels. These last show in such cases a thickening of their walls and obliteration of the finer branches.

The prognosis of retinitis pigmentosa is uniformly unfavorable. The masses of pigment push forward, invade the macula lutea, and frequently obscure the optic disc itself. The retinal vessels are thus either hidden or atrophy and become obliterated. Blindness sets in, generally between the ages of 30 and 40, sometimes a few years later.

TRANSPORTATION OF THE WOUNDED FROM THE FIELD OF BATTLE.

BY T. H. SQUIRE, SURGEON 89TH N. Y. VOLS.

[Communicated for the Boston Medical and Surgical Journal.]

IN order to comprehend exactly how the wounded are taken from a field of battle, it is necessary to know what a field of battle is, or, in other words, to understand the organization and disposition of an army on the eve of an engagement. There is, perhaps, no better figure illustrative of an army corps, in line of battle, than a tree. The *point d'appui*, or base of support, is the root, the head-quarters of the commanding general is the trunk, the three divisions of the army corps are the three main branches, the nine brigades are the primitive subdivisions of these branches, the thirty-six regiments are the smaller limbs, the three hundred and sixty companies are the ultimate twigs, and the skirmishers are the leaves. Within a military tree of this kind several batteries may occupy positions. An army of large size may consist of several such military trees, planted side by side, forming a battle-line that will stretch to the right and left for several miles; the trunks of the different military trees corresponding to the different roads that lead through the country, and the divisional, brigade and regimental branches extending through fields and woods, over hills and through valleys, between.

The wounded of a battle-field are divided into two classes; those who are able to help themselves from the field, and those who must lie where they fall till assistance comes to their relief. A soldier of the former class, when wounded, steps back from his place, and reports to his nearest officer for permission to go to the rear. He passes the company and the regimental commander, and soon comes to a partially sheltered nook, where the surgeon has, for the time being, established the *regimental hospital*. Here his name is registered by the hospital steward, his wound is examined and hastily dressed by the surgeon, and he proceeds onward with a written pass from the medical officer, till he comes to a yellow flag, planted on the divi-

sional branch of the military tree, which indicates the *division hospital*. Here his name is registered again, his wound is redressed if necessary, he receives some coffee and other refreshments, and then resumes his march for the *corps hospital*, at the root of the tree, where he either remains for treatment or takes steam transportation to some *general hospital*, beyond the theatre of military operations.

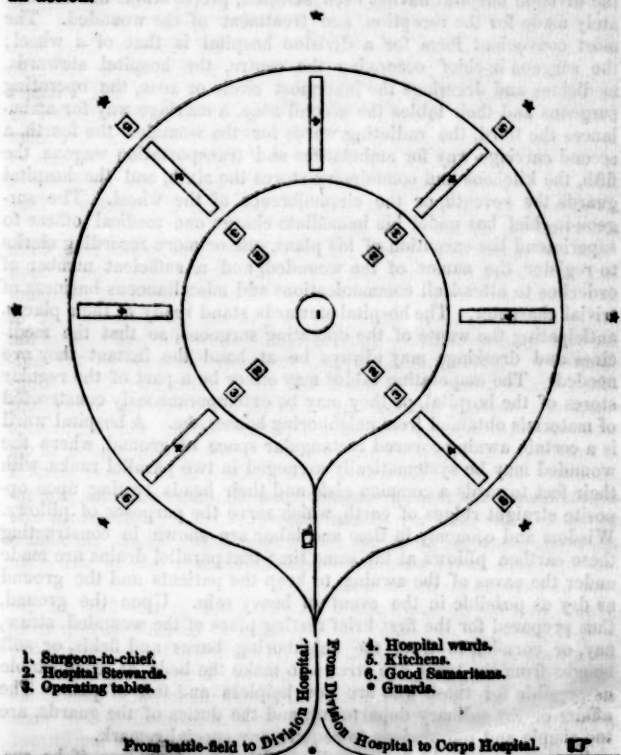
For the assistance of the wounded of the latter class, stretchers and stretcher-bearers, ambulances and ambulance-attendants, are required. A stretcher, upon which a wounded man is laid to be borne from the field, is eight feet eight inches long, two feet wide and fifteen inches high, and its weight is twenty-one pounds. The legs are so attached that they may be folded into parallelism with the side rails, and the iron cross-bars, designed to render the canvass tense, have joints in the middle, which may be flexed so as to allow the side rails to fall together—the legs only intervening—and, in this compact form, the stretcher occupies but little space in transportation or in storage. The canvass itself is only six feet long, the extension of the side rails at each end, for handles, making up the balance of the eight feet eight inches. During an engagement, the musicians of a regiment, twenty-two in number, are the stretcher-bearers. They are under the charge of the surgeon.

An ambulance is a closed chamber, six feet four inches long, three feet ten inches wide, and four feet eight inches high; borne upon four wheels and drawn by two horses. The bed inside of the chamber, wide enough for three persons, is, for the convenience of description, a second floor thirteen inches above the real floor of the chamber.* A longitudinal section, twenty inches wide, in the middle of this bed, may be dropped, half of it either way, like folding-doors or table-falls, and thus the chamber is provided with two long seats capable of accommodating eight persons sitting. Each ambulance is provided with two stretchers, securely lashed to the outside of the chamber. The floor, the frame of the bed, and all the lower parts of the ambulance chamber, are made of wood; the ceiling and the upper part of the sides are of canvass, supported by appropriate ribs or bows. An army corps has eighty ambulances. Each ambulance has three attendants, who are detailed soldiers; one to drive the team and two to assist the wounded.

Such accommodations being at hand, the soldier who falls on the field of battle, and is unable to rise again, is carefully taken up by the musicians, laid upon a stretcher, and carried to the regimental hospital. His first and most urgent wants are here ministered to by the surgeon, and he is then placed in an ambulance, and thus transported to the division hospital. The division hospital is the place where all the surgical operations of the battle-field are performed. Whatever of confusion may exist elsewhere, perfect system and order

* It is a defect in the United States Ambulance, that the bed is not constructed with stationary pillows.

must prevail here. The division hospital corps is composed of a variable number of surgeons, hospital stewards, nurses, cooks, teamsters, working men, and guards. The material of the hospital consists, mainly, of surgical instruments, surgical dressings, medicines, blankets, tent-flies, axes and other implements for the working men, commissary stores and furniture for cooking and serving the food, and the necessary teams for transportation. Whenever the division moves, the division hospital moves with it, always keeping, as nearly as possible, the relative position it will require to occupy in case of an action.



The precise location of the division hospital is always a matter of much importance, and it generally happens that the selection of place

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must be made very quickly. Several things require to be considered in making this selection. The hospital must be as near to the line of battle as it can be without being disturbed by the enemy's missiles. It must never be within reach of small balls, and, if admissible, it should also be beyond the range of shot and shell. It should be, as nearly as possible, on the main line of communication from the division centre to the army base. Convenience to good water is always a great desideratum, and natural shade is of much importance in the heat of summer. The ground for the location of the division hospital having been selected, preparations are immediately made for the reception and treatment of the wounded. The most convenient form for a division hospital is that of a wheel; the surgeon-in-chief occupying the centre, the hospital stewards, medicines and dressings the innermost circle or zone, the operating surgeons and their tables the second zone, a carriage way for ambulances the third, the radiating wards for the wounded the fourth, a second carriage way for ambulances and transportation wagons the fifth, the kitchens and commissary stores the sixth, and the hospital guards the seventh, or the circumference of the wheel. The surgeon-in-chief has under his immediate charge one medical officer to superintend the execution of his plans, one or more recording clerks to register the names of the wounded, and a sufficient number of orderlies to attend all communications and miscellaneous business of trivial character. The hospital stewards stand ready at their places, anticipating the wants of the operating surgeons, so that the medicines and dressings may always be at hand the instant they are needed. The amputating tables may either be a part of the regular stores of the hospital, or they may be extemporaneously constructed of materials obtained from neighboring houses, &c. A hospital ward is a certain awning-covered rectangular space of ground, where the wounded may be systematically arranged in two parallel ranks, with their feet towards a common aisle and their heads resting upon opposite straight ridges of earth, which serve the purposes of pillows. Wisdom and economy in time and labor are shown in constructing these earthen pillows at the same time that parallel drains are made under the eaves of the awning, to keep the patients and the ground as dry as possible in the event of heavy rain. Upon the ground, thus prepared for the first brief resting place of the wounded, straw, hay, or corn-husks from the neighboring barns and fields, or soft boughs from the trees, are strewn to make the beds as comfortable as possible for those who are now helpless and full of pain. The affairs of the culinary department, and the duties of the guards, are too simple and too obvious to require any special remark.

The surgeon-in-chief is peculiarly fitted for his place if he succeeds in having all his arrangements perfect by the time the ambulances arrive. In such a case the ambulances immediately enter the inner carriage-way, and, under the supervision of a medical

officer, the wounded are classified according to the urgency of their respective claims for assistance; the severer cases being placed immediately upon the tables, or near the tables, and the other cases being so arranged in the wards that those of least danger will be farthest removed from the operating surgeons, and nearest the outer carriage-way.

The wounded are not to remain at the division hospital any longer than is absolutely necessary for the performance of operations, the application of dressings, and the administration of medicines, food and refreshments. When—owing to the number of the wounded, or the distance to the corps hospital or place for steam transportation—the ambulances prove insufficient, the ammunition wagons, and all other empty wagons returning to the rear, make the circuit of the outer carriage-way and take in such cases as can ride, in this way, without serious detriment to their wounds; and thus the labor for the ambulances is materially lessened.

For the transportation of the wounded by steam, hospital cars are made use of on railroads, and hospital ships on rivers and the ocean. A hospital car is a common passenger car, with narrow beds instead of seats on either side of the central aisle. There are three tiers of beds, in height, on either side, and five beds in each tier, making thirty beds in each car. A hospital ship is nothing more than a common steamer, well furnished with beds and all other requisites for wounded men.

It is a rule in military surgery that all surgical operations, required for gun-shot wounds, should be primary. It is equally important that all transportation of the wounded should be completed before the advent of inflammatory fever.

In the Field, Army of the James, March 11, 1865.

CLINICAL LECTURES ON SCRIVENERS' PALSY, OR PARALYSIS OF WRITERS.

DELIVERED AT ST. THOMAS'S HOSPITAL, LONDON, BY SAMUEL SOLLY, Esq., F.R.S.,
SENIOR SURGEON TO THE HOSPITAL.

LECTURE I.

GENTLEMEN,—There is a rare disease of the nervous system regarding which I am desirous of having some talk with you. It is scriveners' palsy, or writers' paralysis. Happily for suffering humanity, this form of palsy is rare, notwithstanding the fact that the greatest part of the middle classes of London get their bread by the use of the pen, either as the exponent of their own thoughts or the thoughts of others, or in recording the sums gained, lost, or spent in this great emporium of commerce—this vast Babylon. Its insidious attack is not limited to the male sex, though, of course, the usual occupations of woman render her less liable to it. I know, however, one case;

that of a talented and highly-gifted lady, now no more, who suffered from it for some years, and up to the time of her death, which was not caused by it, or by any direct disease of the nervous system. This lady, the wife of a baronet, was poisoned by bad drainage in one of the fashionable quarters at the west end of London, and died of diphtheria. I have stated that the disease is comparatively rare; and it is astonishing how little has been written on the subject. Even that leviathan of medical lore, Dr. Copland, has not treated of it in his "Dictionary of Practical Medicine." Nevertheless, it is a most important subject. Upon your early correct diagnosis may depend the health and happiness of your patient. If you mistake its real nature, and regard it as a sign of incipient softening of the brain—a mistake which I have known to occur—you may destroy the happiness of your patient, and bring on the very disease which you have erroneously diagnosed. You might easily do so, particularly if you had lately had an opportunity of seeing at a lunatic asylum much of the creeping or general paralysis of the insane, and mistake it for that sad and hopeless disease, merely because your mind has been filled with its gloomy but variable aspect. The chief inconveniences from an error in diagnosis would be, perhaps, the loss of some valuable time in adopting a proper treatment, and giving great and painful anxiety to the patient's relatives and friends.

The disease, as the name implies, shows itself outwardly in a palsy of the writing powers. The muscles cease to obey the mandates of the will. It comes on very insidiously, the first indication only a painful feeling in the thumb or forefinger of the writing hand, accompanied with some stiffness; these unnatural sensations subsiding during the hours of rest and sleep, to return with the writer's work on the next day.

The loss of power is not sudden, as in a paralytic stroke, nor is it a complete paralysis of any group of muscles. The paralyzed scrivener, though he cannot write, can amuse himself in his garden, can shoot, and cut his meat like a Christian at the dinner-table; indeed he can do almost anything he likes, except earn his daily bread as a scribbler.

Scrivener's palsy is not the only instance of a set of muscles being cramped and paralyzed by long-continued exertion. There is, as has been observed by Virchow,* shoemaker's cramp, milking cramp, the musicians' cramp, composers' and the sempstresses' cramp.

When scriveners' palsy first commences, the victim of it only feels its direful influence after a hard day's work. He regards it only as a sign of fatigue, and, as he starts fresh the next morning, attaches no importance to it as the first attack of a serious enemy; but in a short time he is obliged to rest earlier in the day, and hails his early

* Virchow; *Handbuch der Speciellen Pathologie und Therapie.*

dinner hour with joy, as giving him some respite from the fangs of his tormentor. He tries to overcome his difficulty by holding the pen firmer, but this really ~~only~~ increases the evil. Suddenly he finds his pen dash off at a tangent, and the word that he intended to write in the proper line is, to his horror, commenced in the left-hand corner of the page. Not unfrequently the act of writing is arrested, not by such sudden diversion, but by trembling, and a shaking palsy limited to the right hand.

In the cases that have come under my own notice, I have observed much disturbance also in the functions of the nerves of sensation. There is generally a feeling of weariness and slight pins and needles, but usually not numbness. Virchow, who has seen more of these cases, says:—"Ordinarily no disturbances of the sensibility show themselves, except an undefined feeling of straining or fatigue; sometimes a pressure in that part of the muscle; a painful drawing of the nerves in the direction of the trunk; a cold feeling in the whole arm. These morbid sensations only appear, as a rule, after strained efforts to overcome the spasmodic hindrance (or impediment); probably, from their very passing appearance lasting so short a time, are not observed. The whole of the sufferings come after long-sustained and strained employment of the fingers and hands; and the cramp only appears later. In the case of Vallerond, after a wound from an exploding shell (?), a fragment of which remained for a long time in the wounded middle finger, a constant pain followed, which was accompanied later by a winter's croup, which resisted all attempts at cure. Fanciful, peculiar tremblings, as with Romberg's nailsmith, without any other consequence, give rise to severe pains, which only accompany certain movements, and are followed by tonic cramp of the muscles. A smith complained to me from the same cause, besides sensitiveness in the arm, of a frequent firm contraction of the fingers of the right hand, accompanied by the feeling of its having gone to sleep. These appearances were perceptible in rest, as well as in different movements. I myself once got severe pain in the muscles of the hand after long-continued work at anatomy; and I was then for a considerable time subject to it in holding the forceps, and to powerful tonic contractions of the muscles used for that purpose."

Before considering the pathology of this disease, I will relate briefly some cases of it which have come before me in my private practice. The first I shall give in the patient's own words, which are very graphic.

"I am a clerk of four years' service in the — Bank. My duties consist entirely in writing. I first felt pain in my right arm about May, 1862; had then been in the employ of the above-mentioned bank three years, and during that time had worked extremely hard, writing without cessation from morning till evening. Before entering the — Bank I had been in the service of the — Bank of Lon-

don for a few months, and prior to that, with the exception of a year or two at school in London, had spent the principal portion of my life in North Wales, where boating, walking, and other out-door amusements, occupied the greater portion of my time.

"The first symptoms were those of a sprain in the wrist, but I could not recollect hurting it in any way. I, however, used embrocations, and bandaged it for a fortnight. It did not get better, so I discontinued writing for a few days, and it improved so much that I soon resumed work, though still experiencing slight inconvenience, which gradually increased. At this date the pain was most violent between the knuckles of the first and second, and second and third fingers of my right hand. When I moved my second finger I could feel an uneasy sensation striking up my arm, apparently in the sinews connected with that finger. However, I could do a long day's work, and often wrote in the evening for my own amusement, not thinking the complaint from which I suffered very serious. At this time I was a volunteer, but finding the weight of the rifle too heavy for my weak arm to carry, I resigned. I then went to my doctor for advice. He had been previously treating me for sluggish liver and piles. Explaining to him the above-mentioned symptoms, he imagined my complaint to be rheumatism, and treated me accordingly. I still continued to work as much as before. The pain was a burning, uncomfortable feeling between the knuckles (more especially between the second and third fingers) and in the back of the hand, extending occasionally to the shoulder after writing about an hour, and gradually getting worse whilst writing. I worked on in this state for eight months. At times the symptoms were very much more violent, and I frequently in the course of a day had to put down my pen, feeling it quite impossible to continue work in that state, but a few minutes' rest always gave me relief, and I resumed work.

"About this time (Jan. 1863), I obtained a letter of introduction from my manager to you. On this occasion you prescribed for me the sixteenth of a grain of strychnia twice a day. By your advice I at once left off writing, and went home to Wales. When first I discontinued work I experienced great relief; so much so, indeed, that I at times could scarcely feel there was anything the matter with my arm; but the fatigue of the long journey home brought it back again, and when I arrived, the burning sensation returned with great force, and extended all over the back part of my shoulder, and when I wrote I could feel it creeping down my side and under my shoulder-bone. It also became uncomfortable; on the skin a nasty, nervous sensation, accompanied by the old symptoms of burning and bursting, became apparent; it troubled me in the night, frequently keeping me awake for hours, and if by any possibility I happened to turn over and sleep upon it, the symptoms would all increase, and the pain become very violent. I continued to use your prescription, and gave my arm entire rest, had a sling made to keep it in a com-

fortable position, but all to no purpose. So I wrote to you for instructions. You told me to increase the dose of strychnine, under the superintendence of my medical adviser on the spot. I did as you directed, also by advice of the family doctor; hired shower-baths of sea-water, and had water poured down the spine. I also went to Dublin, and consulted a doctor there—Dr. Wilson. He prescribed for me, but without effect; so I returned to London after an absence of two months, with symptoms all more marked than when I left town. You then gave me another prescription, and ordered blisters to be applied to my shoulder and inside part of my arm, just above my elbow, and told me to poultice the blisters, which I did for about a fortnight, my occupation being at this time changed, having a berth assigned to me which required little writing of importance. I did not again visit you.

"About April, 1863, or eleven months from the time I was first attacked, I was examined by an hospital surgeon, who told me that he thought I must have injured a nerve in my neck, probably at some remote period. He advised me to try what light exercise of my arm would do, and did not prescribe; and desired me to visit him in two months. I then went to a celebrated West-end physician, who prescribed; but the medicine proved too strong, so I discontinued it.

"My present symptoms are as follows:—When the weather is very settled, and neither extremely warm nor cold, as long as I entirely rest my arm, it is pretty comfortable; though at all times I can feel a nervous pain, and the more I think about it the worse it becomes. If I take up a pen to write, I feel that a change takes place instantly; and directly I commence writing, the old burning sensation and uncomfortable nervous feeling comes on, and would no doubt increase if I wrote a dozen lines with my right hand; for even signing my name at times causes me much inconvenience. Changes of weather, especially from warm to cold, cause me much uneasiness, as it is always worse when cold, and is also very much affected by the state of my health; as when low-spirited or suffering from piles I find it is worse. When very cold weather sets in, it aches and burns very much, and I feel at times a violent pain under the shoulder-bone. The exertion of writing this short account, though with my left hand, has made it feel much worse; it aches, burns, and pains me about the right shoulder, and even up to the back part of my head; while a nasty creeping sensation pervades the whole of my shoulder, arm, and hand.—I am, Sir, your most obedient servant, G. D."

I have advised this gentleman to abandon the use of the pen altogether, to take a sea voyage, and carry his arm in a sling, to remind him that he must not use it.

[To be continued.]

Bibliographical Notices.

Defective and Impaired Vision, with the Clinical use of the Ophthalmoscope in their Diagnosis and Treatment. By LAURENCE TURNBULL, M.D., Ophthalmic Surgeon to Howard Hospital, Member of the American Med. Association, &c. Philadelphia: Lindsay & Blakiston. 1865.

OPHTHALMOLOGY seems to be especially unfortunate in its American literature. A few years ago the American Medical Association published a (\$100.00) prize essay that disgraced both the Committee and the Association, and yet notwithstanding the severe but just criticism it received, the Association published two years afterwards a report on ophthalmic surgery still more disgraceful. This was to have been continued. Again, we have had an *American Journal of Ophthalmology* published for the last two years in New York, which, as it mostly consisted of translations from the German and French, would have been of some use at least to those unfamiliar with the foreign languages, had the English used been pure. But such is the barbarity of the language that the reader will be most likely to throw down the number in the belief that no truth can be concealed under such a guise. It is not in any sense an American journal, yet it goes abroad as a representative of the state of ophthalmology in this country. It is believed that these facts have positively deterred the scientific oculists of this country from publishing their original observations or presenting to their medical brethren the results of foreign research. An honorable exception must be here made in favor of various papers that have from time to time made their appearance in the *American Medical Times* of New York. The general practitioner naturally does not distinguish between what is true and valuable and that which is garbled and one-sided. And thus the timidity of scientific modesty prevents much from appearing that is truly interesting to all, from fear of its being classed with charlatanism. Prof. Donder's truly magnificent work on the Accommodation and Refraction of the Eye, printed in English by the New Sydenham Society, covers nearly all the ground that heretofore could only be trod by those familiar with German and French. American oculists need not therefore now be the exponents to their professional brethren of the advance in ophthalmology made upon the other side of the Atlantic. This work, and two or three others lately published in England, seem to us to exclude the necessity for such a pamphlet as the one before us entitled "*Defective and Impaired Vision, with the Clinical use of the Ophthalmoscope.*" It consists of a series of extracts from European authors, collected for the purpose of "bringing before the great mass of intelligent and reading physicians of the United States much that is new and interesting on the ophthalmoscope and deep-seated diseases of the eye."

Now our objection is, that if it is requisite or useful to lay before the general practitioner in the form of a pamphlet the rapid strides of ophthalmic science, it is as requisite that this pamphlet should give the very last step that is in advance of our former knowledge. Here, we think, the author has failed. For instance, under the head of "*Ophthalmoscope,*" not a word is said in reference to the *binocular ophthalmoscope* or the *autophthalmoscope*. The author quotes from Zander, but does not tell us that Dr. Carter has published, in England, a

translation of Zander with notes, where the reader can learn about the different forms of ophthalmoscopes and the theory of their make and use, without a knowledge of which the general practitioner will have great difficulty in trying to satisfy his curiosity in obtaining a view of the fundus oculi.

With reference to the action of belladonna and opium on the iris, Dr. Hayden, of Dublin, is quoted in the most authoritative manner. Now on this point it has been well said "that the last theory dates from the last experiment." The latest research denies the existence of radiating fibres in the human iris, and with this view Prof. Donders seems to agree, as he says: "Independent radiating fasciculi of fibres are less easily demonstrated. The vascular trunks, which likewise have a radiating direction, possess a distinct muscular layer; and it is generally difficult to prove that the fibrous bundles found do not belong to the vessels. However, most anatomists think that they have satisfied themselves as to their presence. *In this I never completely succeeded.*" (*Syd. Soc. Transl.*, p. 23.) Certainly their presence in the iris of the bird and not in that of man would best reconcile the at present very contradictory experiments of the action of various substances upon the size of the pupil and the curvature of the lens. In reference to the anatomy of the ciliary muscle the author certainly cannot be acquainted with the latest published articles, or he would not give us such an idea of it as he does. The so-called circular fibres of Müller do not act as a separate muscle. They, together with the more longitudinal fibres, cause, by contracting, the approach of the choroidal end of the muscle to the corneal end, i. e., they draw forward the ligament of the lens and slacken it up.

We pass over the remarks on clinical ophthalmoscopy to come to what the author has quoted in reference to glaucoma and iridectomy. There certainly was no need to lay before the profession the very feeble attack on ophthalmologists from the *Dublin Quarterly* and the *Dublin Medical Press*. We are glad that as an antidote the author has inserted Bowman's very dignified and masterly reply, in which he gives the sum and substance of glaucoma and the importance of iridectomy. The author does not tell us about Mr. Hancock's operation further than to quote Mr. Bowman's remarks, which are sufficient for those who know all about it. We would simply remark, in passing, that the (at least theoretical) basis of Mr. Hancock's opening of the aqueous and vitreous chambers rests upon what he calls "*division of the ciliary muscle.*" His operation does not divide the ciliary muscle. Nothing would do that short of a circular incision through the sclerotic over the middle of the muscle, in other words abscision of the anterior third of the globe.

Part of Mr. Bowman's remarks the author prints in "Jäger's test types for the convenience of his readers." The English part of Jäger's test types was unfortunately chosen, and we endeavored, therefore, a few years ago, to have them reprinted in better English. This we found to be impossible, as we had already imagined, knowing what difficulty Prof. Jäger himself had to obtain type for his first edition. We were therefore agreeably surprised to find this accomplished in this country. But upon inspection we find that this test type does not correspond in any way whatever with Prof. Jäger's, and is really of no use, except to give an idea of what Jäger's was. It is quite extra-

ordinary that the author does not mention Snellen's most admirable test types, now taking the place of Jäger's, or his own townsman Dr. Dyer's types, copied in part from Snellen.

Let us pass over to the section headed "Accommodation of the Eye." Here certainly was an opportunity to inform the general profession of a step in advance in ophthalmology. But we are left altogether in the lurch just as the account commenced to be interesting. The wood-cut given is extremely faulty, even as a mere diagram. There are certainly many more correct ones published, which might have been copied. The reader had better have been referred to Prof. Donder's book, where he certainly had also better be referred for all that concerns the anomalies of refraction, including *astigmatism*, which the author *does not mention*, and which is the latest and one of the most striking studies of the last few years. We therefore do not recognize the necessity for, or the special value of, this pamphlet. J.

A System of Surgery; Pathological, Diagnostic, Therapeutic and Operative. By SAMUEL D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College, &c. &c. Illustrated by over thirteen hundred Engravings. Third Edition, much enlarged and carefully revised. In two volumes. Philadelphia: Blanchard & Lea. 1864.

Prof. Gross's large work is well known, and, we believe, fully appreciated wherever the English language is read, and its great merits and small defects have been noticed by us on the appearance of the former editions. In the present issue every chapter has been revised, and additions to the extent of two hundred pages have been introduced throughout the text, the previous arrangement of matter being retained. Although deficient in some respects, when compared with the latest published records of the investigations of the masters in special branches of surgery, it must long remain the most comprehensive work on this important part of medicine.

A Manual for the Medical Officers of the United States Army. By CHARLES R. GREENLEAF, M.D., Assistant Surgeon U.S.A. Philadelphia: J. B. Lippincott & Co. 1864.

The meaning of this little compilation, which we can cordially commend to the hospital surgeon, is so well explained by the author in the preface that we give it in full. He seems to have accomplished his task in a thorough manner.

"The medical officer is brought more closely in contact with the various departments of the Army than perhaps any other officer in service. In a general hospital, he is not only physician and surgeon, but military commander, adjutant-general, quartermaster, and commissary for the sick and wounded under his care.

"To comply with the requirements of these widely different branches of the service, necessitates an intimate acquaintance with the routine work of the departments and a constant reference to the Regulations of the Army, and orders and circulars which have been issued by the War Department modifying the same. The latter are in many instances difficult to obtain, and the object of this work is to provide medical officers, and civilians who contemplate entering the service, with a synopsis of the duties required, directions for performing them, and, as far as practicable, with the forms at present in use.

"Under the heading *General Hospitals*, a description will be found of the re-

ports and returns to be made by the surgeon in charge, daily, weekly, bi-monthly, monthly, quarterly, semi-annually, and annually; together with directions for making out muster and pay rolls of the patients and attendants under his care, and such other details concerning the management of a military hospital as may be of practical benefit to him.

"The duties of the various staff departments, such as *medical inspectors, directors, purveyors, staff surgeons and assistants*, as well as *regimental medical officers and contract physicians*, are treated of as fully as the limited space in this book will permit, especial directions being given in the rendition of monied accounts by medical disbursing officers.

"Directions for making out *Certificates of Disability*, and *Final Statement* papers, for soldiers about to be discharged from the service on account of physical disability, are given at some length, as it is believed this subject is less understood (involving, as it does, a knowledge of the various bounties and allowances granted by Congress to soldiers) than almost any other which the medical officer has to deal with.

"The compiler has endeavored, in this little volume, rather to describe the manner in which the non-professional duties of the Corps shall be performed, than to suggest any improvement or innovation on the present system, and he trusts that the simple arrangement of the valuable facts which from time to time have been issued by the Department, will facilitate the labor of his professional brethren, and possibly relieve other departments of a portion of the labors with which they now are overburthened."

Lectures on Surgical Pathology, delivered at the Royal College of Surgeons of England. By JAMES PAGET, F.R.S. Revised and edited by WILLIAM TURNER, Senior Demonstrator of Anatomy in the University of Edinburgh. Third American Edition. Philadelphia: Lindsay & Blakiston. 1865.

THE previous editions of this valuable work upon general pathology have been received by the profession in this country with deserved approbation, and although of late fallen somewhat behind our present views in some special branches, it has maintained a first place among similar works of reference in the library of both surgeon and student. The present issue, re-printed from the second English edition, has been reviewed by Prof. Paget and Mr. Turner, one of his former pupils, and the results of their studies of the writings and investigations of the new German school of pathology have been added chiefly in the form of frequent foot-notes to the original text. The appearance of the book reflects great credit upon the publishers.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 23, 1865.

FRESH AIR FOR THE WORKING CLASS.—We have from time to time uttered our word of remonstrance and warning against the high-pressure system of education said to prevail in some of our public schools, and have felt that parents could not be put too much on their guard against the danger of overtasking the growing physical and mental energies of their children. Close confinement and exhausting drudgery in school are not, however, the only debilitating influences to which

the rising generation, especially of our laboring population, are exposed. The exhaustion arising from these causes might in a very great degree be counteracted and neutralized by exemption from study at home and free exercise in a pure atmosphere out of school hours. But here we are met by a difficulty which, under existing circumstances, is almost insurmountable. On conversing with parents of children whose symptoms seemed to be largely attributable to school confinement and tasks, and inquiring whether out of school hours they encouraged them to play out of doors, and to engage in active sports, so that their feebly expanded lungs and disused muscles might be brought into vigorous play, we have often received a negative answer. The moral influences of the crowded neighborhoods in which so large a proportion of the pupils of our public schools are compelled to live are such, that parents are unwilling to subject their little ones, especially the girls, to the unavoidable contamination to which they would be exposed if allowed to run at large in the streets. They shrink from bringing them into familiarity with the profane or impure language, or the coarse manners of many with whom they would inevitably come in contact. The open squares of the city, the Common and the Public Garden do very little to obviate this difficulty. They are most of them too remote from the homes of the class of which we are speaking to be made available to them as places of healthful recreation during the short interval of school intermission at noon, or after the afternoon session. It is true the great importance of out-door exercise for their children is not fully appreciated by too many parents of this class. They yield too much to the languid desire for rest indoors or an unhealthy passion for books, thus exposing their children at home to a similar enervating influence to that to which they are subjected at school.

These evils are very serious ones, and appear to be inseparable from the inevitable overcrowding of our larger cities. The discomfort of mean and insufficient residences for the working classes has been, to a certain extent, done away with by the erection, within a few years, of the model houses, so called. But even these commodious residences cannot obviate the special evils of which we are speaking. This can only be effected by a suburban residence somewhere among the numerous attractive country towns immediately about Boston. This subject has been so ably treated by a writer in the *Boston Daily Advertiser*, that we cannot refrain from transferring the whole article to our pages. We will only add that we agree most cordially with the writer, and sincerely hope his suggestion may be speedily acted upon.

"We are glad to find that the subject of homes in the country for laboring men who live in Boston is engaging more general public attention. As a matter of education, as a matter of health, or as a matter of morals, we conceive that it is a subject of the first importance to practical men.

"In the city of Philadelphia a man may hire a pretty house for two hundred and fifty dollars, well finished and substantially built, with every facility for water arrangements, gas and the other conveniences of modern life—the whole built on a lot one hundred feet deep. Is there any reason why, because a man works in Boston, he should be unable

to enjoy these conveniences, which have become necessities, unless he pays twice or thrice the price for them paid by his fortunate cousin in Philadelphia?

"The workman who lives in Worcester sees his boys grow up strong, tall and hearty—not oppressed by school work or other confinement. If he chooses he can cultivate the half acre or acre next his house, and provide his table with better vegetables than Mr. Orzesus or Mrs. Midas can buy in Faneuil Hall Market. When winter comes, if he chooses, he lays down his own pork for the winter. The year through he has eggs for his table, if his wife and children choose. And he does not pay so much for his rent as the workman we have described in Philadelphia. In practice, indeed, he buys his own homestead, and knows what "real estate" means.

"Now the Philadelphia workman and the Worcester workman both, very probably, live half an hour from their work. Every one can see that the Boston workman might, within half an hour of his work, have just the same advantages at the same price—if the railroad companies and capitalists would take this matter in hand on a scale of magnitude sufficient to offer these facilities to many people at once. There is land enough within ten miles of Boston for such homes as we describe in Worcester. All that is needed is that the arrangements for a large number of houses and gardens, at cheap rents, be made at one time at one place; for it is necessary that the morning and evening special trains shall be arranged to meet the specific working hours of the city.

"Let any railroad company, or any combination of shareholders, build such a village of a hundred houses, as will give homes and gardens to a hundred families at rents not exceeding one hundred and fifty dollars. The accommodation given could be made palatial in comparison with the crowded tenements in the city for which the same families are now paying from two hundred and fifty to four hundred dollars. Let the trains to Boston be arranged so that the workmen may meet the requisitions of a day's work. What they will gain will be, first, a chance for the education of their children under the open sky, and with good air and food—an opportunity which all the city missions, and ministers at large in the world cannot give them; second, an interest themselves in the direction of their own community, which the best man loses when he is one of a thousand huddled together in a crowded alley; third, opportunities of health, exercise, and personal improvement which would make, in a generation, an entire change in the physical stamina of our laboring men.

"The investment of a capital of two or three hundred thousand dollars in the establishment of such a village for the laboring men of Boston would be amply repaid in money, and it would be the beginning of a system of the utmost value to the town. Princes, large capitalists, merchants, clerks, and master-manufacturers are able now to use the railroad system with the advantages we have named. It is yet to be applied, on a sufficiently generous scale, for the equal or greater advantage of day laborers and mechanics who work by the day."

DR. A. W. WALLACE, in a valuable paper on the volumetric analysis of the urine, published in the *Dublin Quarterly Journal of Medical Science*, says:—

"It has become the practice with some to give phosphates in cases of disease of nervous tissue, and the plan was followed at the commencement of the treatment of Case I. Farther reflection, however, led to giving up the practice. If the phosphates are wanting in the urine it is not because they are not supplied in sufficient quantity to the system, for there is always abundance of them in the food. Either they are not assimilated at all, and are passing off some other way—in which case there is no reason to suppose that phosphate of zinc or iron would be better assimilated than the phosphorus normally present in the food—or, possibly, they are being used up in the construction of some abnormal growth, as chloride of sodium seems to be in the hepatizing lung of pneumonia, and then an additional supply of them would be positively injurious if absorbed at all. It may, however, be well doubted whether it is possible to supply phosphorus or sulphur to the tissue of either nerve or muscle by putting phosphates into the alimentary canal. It is probable that the phosphorus contained in the phosphates which are in the blood is on its way *out of*, rather than *into*, the tissues, and that it is introduced into them as an elementary part of the albuminoid components which pass into the blood as chyle. If this be true, then the administration of phosphates, with a view to their being assimilated, is useless."

We have received a communication from Messrs. J. R. Nichols & Co., complaining that our notice of their food for invalids was calculated to do them injustice, inasmuch as it was not offered for public notice, but a few specimens only were prepared and submitted to physicians for their judgment. As our opinion was asked in the note accompanying the package, we took it for granted that the article was before the public, particularly as it had attached to it a printed label of directions for use. The account of Liebig's soup for children accompanied the package, with the statement of the additions made to it by the Messrs. Nichols. We should be glad to see Liebig's preparation literally re-produced.

DR. BROWN-SÉQUARD IN DUBLIN.—During the last week much interest has been excited in Dublin by the visit of Dr. Brown-Séquard to that city, and the performance of a very formidable operation under the advice of that gentleman, the result of which is looked forward to with great interest. The operation to which we allude was the excision of a portion of one of the vertebræ in a case of partial dislocation of the spine from injury, and was performed by Dr. Robert Macdonnell, in Jervis-street Hospital. The very formidable nature of the operation made its performance a matter for the most mature consultation and deliberation. After examination of the case by Dr. Brown-Séquard, and in view of the absolute certainty of death as the only remaining alternative, it was determined to endeavor to relieve the symptoms of paralysis by operation. The vertebra, which was low down in the dorsal region, was, we believe, found to be twisted and compressing the cord, and portions of the laminae were removed. Up to the present time we understand that a slight improvement in motive power, or in the incontinence of urine and fæces, has resulted.

—*Canada Medical Journal*, from *Dublin Medical Press*, Feb. 8th, 1865.

TRICHINA SPIRALIS.—The Sanitary Commission has been making an inquiry into a very curious subject. The nature of it will be best understood by the mention of an occurrence that lately happened. A stout and apparently healthy Englishman was admitted into the Calcutta Medical College, suffering from an undiscoverable disease. It was found that he had trichina in a tumor in his neck, and he died. Trichiniasis is said to be rather common in India, and the great cause of it is diseased pork. The Sanitary Commission tell a revolting story of the way in which pigs, and even sheep, are fed in many parts of India. They get nothing but the most filthy description of offal, and then human beings eat the flesh, and get trichina spiralis. Some of the details are so unpleasant as to forbid narration; but those who know India and the personal practices of the natives will understand the full force of this statement by Dr. Gordon:—"In an incredibly short space of time after the villagers have left the field it is as if they had never been there, while the herd by which the clearance has been effected may be found in some shady place near, or close to a tank, with a few of the more insatiable that have gone to hunt for dead dogs, cats, cattle, and Hindoos that have paid the debt of nature since the previous meeting, and have been thrown or left on the plain to be devoured by domestic animals or vultures." English people will find it hard to believe that flesh thus fattened is used for food, yet it causes no surprise here. The Sanitary Commission say:—"In more than one official report received by the Commission these habits of India pigs are spoken of with something like actual approval, and one officer appears to consider that by the regular employment of pigs the necessity for entertaining conservancy establishments for the removal of filth may be to some extent avoided." Sheep are fed in this manner also. It may be necessary to add that in many of the principal stations in India the Europeans are safe from this danger, on account of the mutton clubs, which keep properly grain-fed sheep, and distribute the joints among the members. But in the large towns the servants buy meat in the bazaars without regard to what it has been fed upon. In a country where nature itself is always fighting against human life, we are obliged to live under conditions which would be thought utterly destructive in the most temperate regions of the globe. The food is bad, the water is bad, the air in the plains is like so much poison; the streets are foul with every kind of nuisance, drainage is impossible, the dead are left unburied, or just put an inch below the ground; and, in short, an army of hostile circumstances conspire against the health. The matter of food and drink has been taken up very warmly latterly, and that is owing, in a great measure, to the president of the Medical College, Dr. Norman Chevers. For years he has devoted attention to the subject, and often called attention to the evil.—*London Lancet.*

DEATH OF DR. LEVI S. BARTLETT.—Died, at Kingston, N. H., Feb. 19th, Levi Stevens Bartlett, M.D., aged 53. A writer in the *Boston Daily Journal* gives the following notice of the life of Dr. B.:—

He was son of the late Dr. and Judge Levi and Abigail Stevens Bartlett, and grandson of the late Dr. Josiah Bartlett, who was the first signer, after Hancock, of the Declaration of Independence. He

occupied the mansion built by the signer, in which are preserved with great care many relics which belonged to the early patriot, who perilled his life for his country, and whose remains rest in the village cemetery of Kingston. The deceased was born at Kingston, December 8d, 1811. He received his academical education at Phillips Exeter Academy, and studied medicine with his uncle, the late Hon. Josiah Bartlett, of Stratham, N. H., Prof. Elisha Bartlett, then of Lowell, Mass., and with Dr. John Barrett, of Portland, Me. He attended the medical lectures of Dartmouth and Bowdoin Colleges, and received his medical degree at Dartmouth in 1832, a short time before he was 21 years of age. Having come into possession of the landed estates of his father, with the mansion of his grandfather, he settled in Kingston, and became an eminent physician. But, on account of his health, for many years he had relinquished the practice of the profession, and lived quietly and modestly at home in the endearments of his family.

The Surgeon-General of the U. S. Army has ordered that in all cases, either in the hospital or on the field, in which death is supposed to result from the employment of anæsthetic agents, a detailed report of the attendant circumstances shall be made to the Medical Bureau. A sample of the drug employed will also be forwarded for analysis.

The registration report of the State of Rhode Island for the year 1863 shows the number of births in that State that year to have been 3,583—422 less than in 1862. More than 50 per cent. were of foreign and about 49 per cent. of American parentage. The number of marriages was 1618, an increase of 140 over the year previous. There were 3,207 deaths, or 600 more than in 1862.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 18th, 1865.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	49	30	79
Ave. mortality of corresponding weeks for ten years, 1853—1863,	40.0	36.4	76.4
Average corrected to increased population	00	00	83.58
Death of persons above 90	0	0	0

COMMUNICATIONS RECEIVED.—The following communications have come to hand and will receive a speedy insertion:—A Case of Diphtheria; a Translation from Zeissl; a Case of Ovariectomy; and on the Treatment of Wounds of the Chest by Hermetically Sealing them

MARRIED,—In Hartford, Ct., March 2d, Dr. A. J. Sawyer, of Cambridgeport, Mass., to Miss Emma B. Carrier, of Hartford.

DIED,—In West Newton, March 19th, Dr. J. H. Brown, aged 52.

DEATHS IN BOSTON for the week ending Saturday noon, March 18th, 79. Males, 49—Females, 30. Abscess, 1—accident, 2—aneurism of the aorta, 1—asthma, 1—disease of the brain, 4—inflammation of the brain, 4—bronchitis, 2—consumption, 14—convulsions, 2—croup, 1—cyanosis, 1—diphtheria, 2—dropsy of the brain, 2—epilepsy, 1—erysipelas, 2—scarlet fever, 2—typhoid fever, 1— hæmatemesis, 1— hæmorrhage, 1—disease of the heart, 3—homicide, 1—infantile disease, 2—insanity, 1—disease of the kidneys, 1—disease of the liver, 3—disease of the lungs, 1—inflammation of the lungs, 4—measles, 1—paralysis, 1—peritonitis, 2—pleurisy, 1—premature birth, 3—puerperal disease, 1—pyæmia, 1—rheumatism, 1—smallpox, 1—unknown, 6—whooping cough, 1.

Under 5 years of age, 26—between 5 and 20 years, 8—between 20 and 40 years, 23—between 40 and 60 years, 9—above 60 years, 13. Born in the United States, 49—Ireland, 20—other places, 10.